

McKay (Review) *[Signature]*

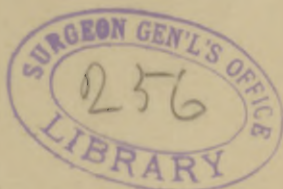
SOME OF THE PRACTICAL RELATIONS OF
OPHTHALMOLOGY AND OTOTOLOGY TO THE
GENERAL PRACTICE OF MEDICINE,

A PAPER READ BEFORE THE

DELAWARE STATE MEDICAL SOCIETY,
JUNE 11th, 1878,

✓
BY READ J. MCKAY, M. D.,
OF WILMINGTON, DEL.,

MEMBER OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY, THE
INTERNATIONAL OPHTHALMOLOGICAL CONGRESS, AND
THE DELAWARE STATE MEDICAL SOCIETY.



WILMINGTON, DELAWARE :
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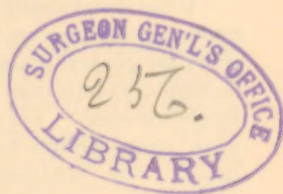
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It is my desire to briefly call your attention to some of the practical relations of Ophthalmology and Otology to the general practice of medicine. They comprehend subjects which have frequently occupied my thoughts for several years past, and it is only very recently that the profession at large in such a medical centre as London, has been profoundly impressed with their great importance.

During the last few years the English medical journals have contained orations and remarks, delivered by request, by eminent and distinguished specialists upon these subjects, before several of their leading medical societies, composed of physicians and surgeons engaged in general and special practice. My subject is so pregnant with useful and varied information, that I do not propose to read an exhaustive paper upon it. I will merely mention some of the practical relations existing between general and special practice, and my remarks will be based almost exclusively upon my own observations of a few selected cases, which were treated during a period of ten years, whilst engaged in general and special practice both in hospital and private practice.

It has occasionally happened that obscure and perplexing cases, whose nature may or may not have been suspected, have been sent to the specialist by the general practitioner to treat for loss of vision, and the ophthalmoscopic examination at once revealed neuro-retinitis dependent upon Bright's disease. For not very infrequently the loss of vision dependent upon neuro-retinitis has been the first symptom manifested in nephritic cases. The exudation and hemorrhages into the optic nerves and retinae which occur in Bright's disease, usually denote a considerable amount of degeneration of the coats of the blood-vessels throughout the body, and that hemorrhages are liable to occur at other places, more especially where those vessels are not well supported, in the brain for instance, and apoplexy of a serious or fatal character is likely to ensue. And if the patient has not reached the age of maturity, the prognosis is generally very grave. Such cases have occurred to me.

One was briefly as follows: A boy, aged 17 years, of healthy American parentage, had been treated several years for suspected Bright's disease,

but no albumen or casts could be detected in his urine after repeated examinations. His first visit to me, I unhesitatingly and promptly diagnosed, with the ophthalmoscope, Bright's neuro-retinitis, (gave a very grave prognosis to his father, that he would probably not live two years,) treated him for his impaired vision, which greatly improved, as did also his general health, and continued to make examinations of his urine chemically and microscopically. Five months later albumen and casts were first detected. He died very suddenly eight months subsequently, thirteen months after his first visit to me, from a hemorrhage into the fourth ventricle of his brain, as shown by the autopsy. The interstitial nephritis had apparently finally encroached upon the tubules of the kidney, and then, and not till then, could albumen and casts be found in his urine, which absolutely confirmed the diagnosis.

Occasionally albumen and casts are found only intermittingly and very rarely, or not at all in certain cases of chronic interstitial nephritis, and it is an interesting practical fact, "that the most invariable complication accompanying these cases is the peculiar alteration of the retina designated retinitis albuminurica." To avoid mistakes it must continually be borne in mind that the ophthalmoscopical appearances, once thought to be characteristic of Bright's retinitis, may be dependent upon other diseases, for example, the neuro-retinitis accompanying pernicious anæmia, lead-poisoning, disseminated sclerosis of the brain, and other brain diseases.

Various diseases of the brain and its membranes are often accompanied by well-marked and readily appreciable symptoms of optic neuritis, neuro-retinitis, and choroiditis. Tumors of the brain and especially of the cerebellum frequently cause the "choked disk" so easily recognized by the ophthalmoscopic examination, but not without it, (by inferential diagnostic powers sometimes relied upon.)

Progressive loco-motor ataxy is apt to affect the optic nerves, and deteriorated vision with peculiar limitation of the field of vision, slowly but surely ensues.

Tubercular, basilar, and cerebro-spinal meningitis are frequently complicated by diseases of the fundus of the eye, which may cause slight or complete loss of vision. These diseases are optic neuritis, neuro-retinitis, or choroiditis, and their various complications with each other. If the patient survive these grave meningeal diseases, prompt and proper treatment of their eyes, when affected, may often restore their more or less impaired vision to a surprising degree.

In my case-book I have several very interesting and instructive cases of those diseases dependent upon meningeal inflammation. One was that of a male child of German parentage, 2½ years old, who had just recovered from cerebro-spinal meningitis, when I was called to attend him in February, 1873, for considerable loss of vision, which had first manifested itself to the parents a week previously, during the period of convalescence. Fortunately his hearing was not at all affected, for when it is, as a complication of

this disease, complete and permanent deafness usually ensues. His vision when first visited did not exceed the recognition of his father one foot distant. His eyes were constantly rolling about and often crossed. The pupils were widely dilated and immovable under strong light. In the vitreous humor were numerous large floating opacities, and there was marked optic neuritis. After two weeks treatment he could see an orange or an egg at fifteen feet, and recognize different persons at the same distance. His facial expression had greatly improved, as well as, all of his eye symptoms. I ceased to visit him, requesting that he should be brought to my office, but I am sorry to say he never was, and I lost sight of the case.

Two other cases which I attended from the beginning to the end of their illnesses were infants. The older was a mulatto child aged 23 months, who was taken ill February 24th, 1876. Two days later when I was called, his disease was not fully developed, but the next day meningitis was fully established. A few days later he became much better. His eye-sight and hearing were examined daily during the first ten days of his illness, and did not seem to be at all affected. During the three subsequent weeks he was not visited, because he was reported to be convalescing, and was absent from his home most of that time. When again requested to visit him, I found him considerably emaciated, with increased cervical opisthotonus, and he was totally blind and deaf. Optic neuritis descendens was readily diagnosticated with the ophthalmoscope. Examination of his ears, showed the "drums" and middle ears to be normal, so nervous deafness was diagnosed. High fever commenced again upon the next day and continued until his death, four days later. Post-mortem examination manifested over eight ounces of a sero-purulent fluid in the arachnoidal cavity and lateral ventricles. The dura mater was adherent to the central occipital region of the skull. A large amount of purulent lymph was found at the base of the brain, and the olfactory bulbs, optic nerves and chiasm, branches of the fifth nerve, and the auditory nerves, were covered by it and inbedded in it. The optic and auditory nerves were very soft.

The younger child was white, with American parents, 5½ months old. After a few days illness I was called to it January 3d, 1877. Basilar meningitis was promptly diagnosticated. Four days later his eye-sight seemed lost. His eyes were examined ophthalmoscopically, and optic neuritis, very similar to the last mentioned case, was found. His hearing seemed lost also, but he was too young for me to determine that point absolutely. He died January 9th, after a ten days illness.

Permit me to digress for a moment just here, to remark that oculists who use the ophthalmoscope frequently and intelligently, learn to know its real value as an aid to diagnosis in various diseases, and should not be held responsible for many of the extravagant and unreliable statements of other members of the profession who use it less, and not very intelligently, as is well known.

We are all cognizant of the frequent occurrence of iritis dependent upon syphilis. There are, besides, numerous other eye-diseases, both superficial and deep-seated, dependent upon the same cause, which are at once characteristic of their origin to the practical and skilled ophthalmologist. For example, those chronic and obstinate cases of interstitial keratitis, with and without deeper complications consequent upon inherited syphilis, which can be readily recognized by their manifest pathognomonic symptoms, and successfully treated, without always learning their vague and concealed histories. Unfortunately, these cases are often misunderstood and unsuccessfully treated, because their constitutional origin is never suspected.

Occasionally syphilis may be the cause of various successive diseases of the eye, increasing in gravity until it seems that the vision must be lost, (although the patient may be under specific treatment all the time,) and eventually the eye-sight may be restored. One of my cases of that kind was under treatment about one year, and observation two years longer. She was an English woman, aged 23 years, who had contracted syphilis from her husband, who was also a patient of mine. When I first saw her, she had a gummy syphilitic exudation beneath the conjunctiva upon the sclerotic of the right eye at the outer canthus, besides other syphilitic manifestations. Her vision was reduced to $\frac{3}{80}$, or less than one half. The ophthalmoscope showed recent patches of retino-choroiditis in the right eye at the upper and outer periphery of fundus, corresponding to the site of the external sclerotic exudation, and slight haziness of the vitreous humor. The superficial trouble disappeared in ten days, but the deep ones increased. Iritis, and subsequently retinal hemorrhages occurred, followed by large floating opacities of the vitreous humor, which reduced the vision in the right eye to counting fingers at 18 inches. It began to improve again very soon however, and she went to England for the benefit of the sea voyage. Disseminated retino-choroiditis had occurred in her left eye before she started, but its vision was never less than one half. She was constantly under specific treatment while absent $4\frac{1}{2}$ months, and after her return until her vision increased to $\frac{3}{80}$, or No. 1 sight in both eyes. More than two years afterwards it was still No. 1.

Occasionally both eye and ear diseases occur in the same person, dependent upon a meningeal or cerebral lesion of an obscure syphilitic character. Epitomizing a long and interesting history of such a case, I will briefly relate, that an ex-Federal soldier, afterwards a policeman in New Orleans, aged 45 years, began to have pain in the right posterior parietal and occipital regions in February, 1876, when combing and brushing his hair, and to stagger when walking. Two months later the pain became so severe, especially at night, and was accompanied by such terrible tinnitus aurium that he had to give up his police duties. His constant dizziness, and unsteadiness of gait, caused his superiors to suppose him habitually drunk. During the latter part of the following June, right facial

paralysis was manifested, and he could not shut his right eye. About the middle of July he came north to New York City for change of climate, and on the last day of that month he presented himself to me for treatment at the Bellevue Hospital, out-door department. His condition clearly indicated those symptoms just mentioned. His vision was fairly good for all distances, and there was no internal eye trouble. There was tenderness upon pressure of the right parietal region, but none of the mastoid process. His drum membranes and middle ears were healthy, and with his left ear he could hear the watch, voice, and tuning-fork well, but he was totally deaf to all sounds in the right ear. After a few weeks treatment he was greatly relieved of all of his symptoms, except the tinnitus and deafness, and he did not again present himself for observation for three weeks. Then he was without pain and there was no change in his aural condition, but in that interim, paralysis of all the branches of the third right cranial nerve had supervened, displaying all of its symptoms, viz., complete ptosis with total inability to raise the upper lid, considerable immobility of the eye-ball, dilated pupil and divergent squint. A slight amount of facial paralysis still existed. Taste and smell were defective upon the right side also. Seven months later, having been under observation from time to time, and constantly under treatment, he was still deaf in his right ear, but had much less tinnitus, no dizziness, and his eye looked well and natural. He still complained of double vision at times however, and was unable to work, from general debility.

About three decades ago Prof. Donders, of Utrecht, promulgated his doctrine of "the anomalies of the refraction and accommodation of the eye," and demonstrated by it that "the connexion between science and practice was more closely drawn together than in any part of medicine." It seems truly wonderful that the discovery that the length of the eye-ball has such a wide application in its practical relations to human vision, and that all parts of the civilized world have been more or less benefited by it. Also, that all departures from the normal refraction of the eye, can be so readily and accurately determined and corrected, when desirable and necessary. Although it is theoretically abstruse and difficult of comprehension, like all profound and complex mathematical problems, yet when solved and thoroughly comprehended in its beautiful and practical adaptations and uses to the human eye, it seems so manifestly simple and plain, that the wonder is, it was not sooner discovered. Since it has, however, a vast and very important field has been opened up, which has been most successfully and intelligently cultivated for about three decades abroad, and about half that time in this country. And within that time myriads of the human family have experienced much comfort and happiness, in the proper selection and adaptation of glasses, by their improved vision and relief of many distressing and hitherto irremediable discomforts and sufferings. Before narrating a few exemplifying cases, I wish to mention a recent remarkable historical instance of its practicability and importance, viz., that

in June, 1877, the wearing of glasses was first permitted to the soldiers of the French army, and 50,000 men were at once added to its ranks.

Many obstinate and apparently incurable nervous cases are often unsatisfactorily treated by busy and skillful general practitioners, upon various theories, without any permanent and satisfactory relief being afforded, because their causation, dependent upon the anomalies of refraction and accommodation of the eye, had not been suspected. And many of those cases have been promptly and permanently relieved by the skillful ophthalmologist within the past few years. They are known as cases of asthenopia or "weak sight," and are often complicated by severe and obstinate headaches, with or without dizziness, nausea, vomiting, and many other distressing symptoms. They are very numerous, and occur in persons of both sexes, and in all the walks of life, from early childhood to extreme old age. They are much more frequent among those whose pursuits require more or less constant use of the eyes for near work, such as reading, writing, sewing, and many other like occupations, and especially among those who work in dimly lighted rooms and apartments of all kinds. They include persons who are near-sighted, as well as far-sighted, and even persons who may have normal eyes, but who have abused them, by using them too soon after debilitating illnesses of various kinds, the most common of which I believe is child-bearing. I will briefly epitomize two cases only, as clinical illustrations. The first, a woman aged 28 years, married five years, related that she had been subject to frequent attacks of severe headache as long as she could remember, and that her eyes had troubled her ever since she began attending school; that these troubles had grown much worse since marriage. Upon questioning her I learned that she began to use her eyes, by writing three days after the birth of her first child, and by sewing five or six days after the birth of her second and last child, which was then eighteen months old. She complained of frequent and agonizing headaches, blurring of vision at times, and a sensation "as if her eyes were being torn out of their sockets," as she expressed it, all of which wholly incapacitated her from attending to her household duties for several days in succession, for she had often to go to bed, and remain there during that time. Examination of her eyes showed slight insufficiency of the left internal rectus muscle, which made the act of convergence (necessary to all uses of the eye for near work) difficult and painful as she had graphically described it, and she had a high degree of hypermetropia or far-sightedness, complicated with mixed astigmatism or irregular refraction. By keeping her accommodation paralyzed a week with a solution of atropine, selecting glasses for her, and instructing her in what is known as the gymnastic exercise of her eyes, to give tone and strength to her weakened rectus and ciliary muscles, she was finally relieved after some months.

The second case was a physician, aged 29 years, of large stature, in robust health, who said he had always had trouble with his eyes; that he

could not see the blackboard very well at school, and efforts to study were often very tiresome, compelling him to neglect his studies. He had never been able to write more than three or four lines in succession in his life, and attempts to write more caused him at once to stop, shut his eyes, and remain thus a few moments, to relieve them by resting. Thorough examination of his eyes manifested one of those rare cases of mixed astigmatism, or irregular refraction, for he was found to be both near-sighted and far-sighted in each eye, and each eye had a different refraction. He was promptly fitted with glasses which corrected his anomalous refraction, and was at once able to fill in my office one page of foolscap paper with very fine writing, without the least discomfort. Nine months later he told me he was perfectly satisfied with his glasses, and expressed much happiness and comfort in the constant use of them.

The acute exanthematæ, scarlet fever, measles and variola, as well as the numerous cases of simple and specific pharyngitis, are often early complicated by agonizing symptoms of acute aural catarrh (usually known as ear-ache), and later by perforations of the membrana tympani followed by disgusting purulent discharges, lasting for weeks, months, or years, and they often end in death, from caries of the temporal bones, accompanied by meningitis, pyæmia, or cerebral abscess. These cases if attended to early, can be promptly and permanently cured, especially before perforation of the "drums" occur, or shortly afterwards, before caries has begun, and many miserable deaths can thereby be prevented. But I will not prolong my paper to relate any of my cases illustrative of this last subject, fearing I have already wearied you.

These few, imperfect, and disjointed hints upon the relations existing between general and specific medicine, are mentioned to remind you of a subject of vital importance to us all as practitioners of medicine, and more especially of vital importance to the community at large, who may demand our professional services for the relief of their infirmities, sufferings, and deformities.

